

AMENDMENTS TO THE CLAIMS

The listing of claims replaces all prior versions, and listings of claims in the application.

Deletions are indicated by strikethrough and/or double bracketing, and additions are indicated by underscoring.

42. (Currently Amended) A method of producing energy, comprising:
- providing a sealed first chamber;
 - providing a sealed second chamber;
 - providing a semi-permeable barrier separating the first chamber from the second chamber;
 - filling the first chamber with a solvent;
 - filling the second chamber with a solute solution comprising a solute and solvent;
 - providing communication between the solvent solution and solute solution to cause the solvent to flow from the first chamber through the semi-permeable barrier into the second chamber,
 - utilizing the semi-permeable barrier to restrict solute from flowing into the first chamber while allowing the solvent to flow cross into the second chamber ~~as the solvent flows from the first chamber into the second chamber a void is created in the first chamber such that a vacuum develops in the first chamber and increases the pressure in the second chamber;~~
 - causing a progressively decreasing pressure in the first chamber;
 - increasing the pressure in the second chamber as the solvent crosses into the second chamber from the first chamber;
 - ~~periodically applying and removing the increased pressure to drive a member which produces a movement of from which work can be extracted;~~
 - applying the increased pressure against a flexible diaphragm in order to deflect the diaphragm;
 - utilizing the flexible diaphragm to separate the second chamber from fluid adjacent a member;
 - driving the member by the fluid pushing the member as a result of the deflection of the diaphragm to produce movement from which work can be extracted;

removing a portion of the solute solution from the second chamber and transferring the removed portion of the solute solution into a third chamber;

applying energy to the removed portion of the solute solution in the third chamber thereby vaporizing the solvent contained in the removed portion of the solute solution and thereby separating the solute in the removed portion of the solute solution; and

recycling the separated solute to the second chamber.

43-46. (Cancelled)

47. (Previously Presented) The method of claim 42, further comprising condensing the vaporized solvent to liquid solvent.

48. (Previously Presented) The method of claim 47, further comprising returning the liquid solvent to the first chamber.

49. (Cancelled)

50. (Currently Amended) A method for producing a linear displacement of an object, comprising:

providing a sealed first chamber;

providing a sealed second chamber;

providing a semi-permeable barrier separating the first chamber from the second chamber;

filling the first chamber with a solvent;

filling the second chamber with a solute solution;

providing communication between the solvent and the solute solution to cause the solvent to flow from the first chamber through the semi-permeable barrier into the second chamber;

utilizing the semi-permeable barrier to restrict solute from flowing into the first chamber while allowing the solvent to flow cross into the second chamber ~~as the solvent flows from the first chamber into the second chamber a void is created in the first chamber such that a vacuum develops in the first chamber and increases the pressure in the second chamber;~~

causing a progressively decreasing pressure in the first chamber;

increasing the pressure in the second chamber as the solvent crosses into the second chamber from the first chamber;

periodically applying and removing the increased pressure to drive a member which produces a substantial linear displacement of the object;

applying the increased pressure against a flexible diaphragm in order to deflect the diaphragm;

utilizing the flexible diaphragm to separate the second chamber from fluid adjacent a member;

driving the member by the fluid pushing the member as a result of the deflection of the diaphragm in order to produce a substantial linear displacement of the object by the member;

removing a portion of the solute solution from the second chamber and transferring the removed portion of the solute solution to a third chamber;

applying energy to the removed portion of the solute solution in the third chamber thereby vaporizing the solvent contained in the removed portion of the solute solution thereby separating the solute in the removed portion of the solute solution; and

recycling the separated solute to the second chamber .

51. (Previously Presented) The method of claim 50, further comprising pressurizing the first chamber.

52. (Previously Presented) The method of claim 51, wherein pressurizing the solvent chamber comprises using an external pressure pump in communication with the first chamber.

53-67. (Cancelled)

68. (Previously Presented) The method of claim 42, wherein the application of energy heats the solute solution to separate solute molecules from solvent molecules.

69-70. (Cancelled)

71. (Previously Presented) The method of claim 50, wherein the application of energy heats the solute solution to separate solute molecules from solvent molecules.